

**APPENDIX B**

**CLEAN COPY OF THE CLAIMS AS PENDING AFTER ENTRY OF THIS  
AMENDMENT**

1. A method for the detection of a nucleic acid comprising the steps:
  - (a) - producing a plurality of amplificates of a section of the nucleic acid with the aid of two primers, one of which can bind to a binding sequence (A) of one strand of the nucleic acid and the other can bind to a binding sequence C' which is essentially complementary to a sequence C which is located in the 3' direction from A and does not overlap A,
  - (b) - contacting the amplificates with a probe having a binding sequence D which can bind to a sequence B located between the sequences A and C or to the complement thereof, and
  - (c) - detecting the formation of a hybrid of the amplificate and probe,

wherein the sequence located between the binding sequences A and C contains no nucleotides or less than 3 nucleotides that do not belong to the sequence region E formed from the binding sequence D of the probe and the sequence of the amplificate bound thereto and the amplificates are shorter than 100 nucleotides.

2. The method of claim 1, wherein the binding sequence D of the probe overlaps one or both binding sequences of the primers.

3. The method of claim 1, wherein at least one of the primers has nucleotides in its non-extendible part which do not hybridize directly with the nucleic acid to be detected or with its complement.
4. The method of claim 1, wherein at least one of the binding sequences is not specific for the nucleic acid to be detected.
5. The method of claim 1, wherein the total length of the amplificate does not exceed 74 nucleotides.
6. The method of claim 1, wherein at least one of the primers is immobilizably-labelled and the probe is detectably-labelled.
7. The method of claim 1, wherein at least one of the primers is detectably-labelled and the probe is immobilizably-labelled or is immobilized.
8. The method of claim 1, wherein the probe is labelled with a fluorescence quencher as well as with a fluorescent dye.
9. The method of claim 1, wherein one of the primers is labelled with a first energy transfer component and the probe is labelled with a second energy transfer component which is different from the first energy transfer component.
10. The method of claim 1, wherein the amplificate is detected by physical and/or spectroscopic methods.
11. The method of claim 1, wherein at least one of the primers is not specific for the nucleic acid to be detected.

12. The method of claim 11, wherein two of the primers are not specific for the nucleic acid to be detected.
13. The method of claim 11, wherein the probe is not specific for the nucleic acid to be detected.
14. The method of claim 1, wherein nucleotides which are each complementary to A, G, C and T are used in the amplification.
15. The method of claim 1, wherein the amplicates are detected by means of mass spectroscopy.
16. A method for the specific detection of a nucleic acid comprising the steps:
  - (a) - producing a plurality of amplicates of a section of the nucleic acid with the aid of at least two primers,
  - (b) - contacting the amplicates with a probe which can bind to the amplicate, and
  - (c) - detecting the formation of a hybrid of the amplicate and the probe,wherein at least one of the primers is not specific for the group of organisms to which the organism to be detected belongs and the amplicates are shorter than 100 nucleotides.
17. The method of claim 16, wherein two of the primers are not specific for the nucleic acid to be detected.

18. The method of claim 16, wherein the probe is not specific for the nucleic acid to be detected.
19. The method of claim 16, wherein nucleotides which are each complementary to A, G, C and T are used in the amplification.
20. A method for the simultaneous production of amplicates of parts of nucleic acids in which primers are used which allow an amplification of these parts having different sequences, wherein the primers are selected such that the amplicates that are formed do not differ by more than 20% in length and are not longer than 100 nucleotides.
21. The method of claim 20, wherein amplicates and nucleic acids of HIV, HBV and HCV are produced simultaneously.
22. A method for the detection of HCV, wherein two primers and one probe are used whose sequences are derived from sequences of consecutive bases of the HGBV sequence shown below, complementary sequences thereto or sequences that are more than 80 % identical to these sequences:

5'-GTACTGCCTG ATAGGGTCCT TGCGAGGGGA TCTGGGAGTC  
TCGTAGACCG TAGCACATG--3' (SEQ ID NO: 95).

23. The method of claim 22, wherein HCV-RNA is detected.

24. A method for the detection of several nucleic acids comprising the steps:

(a) - simultaneous production of a plurality of amplicates of sections of the nucleic acids with the aid of pairs of two primers, of which in each case one can bind to a binding sequence (A) of a strand of the nucleic acid and of which

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the other can bind to a binding sequence C' which is essentially complementary to a sequence C which is located in the 3' direction from A and does not overlap A, wherein the primers are selected such that the amplificates that are formed do not differ by more than 20% in length and are not longer than 100 nucleotides.

- (b) - contacting the respective amplificates with a probe each time having a binding sequence D which can bind to the sequence B located between the sequences A and C or to the complement thereof, and
- (c) - detecting the formation of a hybrid of the amplificate and a probe,

wherein the sequence located between the binding sequences A and C contains no nucleotides or less than 3 nucleotides that do not belong to the sequence section E formed from the binding sequence D of the probe and the sequence of the amplificate bound thereto and the amplificates are shorter than 100 nucleotides.

25. The method of claim 24, wherein amplificates of nucleic acids of HIV, HBV and HCV are produced simultaneously.